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THE PLANT DISEASE REPORTER

Issued By

Division of Mycology and Disease Survey

BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

Volume XXV Number 5

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The Plant Disease Reporter is issued as a service to plant pathologists throughout the United States. It contains reports, summaries, observations, and comments submitted voluntarily by qualified observers. These reports often are in the form of suggestions, queries, and opinions, frequently purely tentative, offered for consideration or discussion rather than as matters of established fact. In accepting and publishing this material the Division of Mycology and Disease Survey serves merely as an informational clearing house. It does not assume responsibility for the subject matter.

T H E P L A N T D I S E A S E R E P O R T E R

Issued by

THE PLANT DISEASE SURVEY

DIVISION OF MYCOLOGY AND DISEASE SURVEY

Volume XXV Number 5

March 1[5], 1941

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Douglas C. Bain reports a new leaf spot of sorghums from Louisiana, page 142.

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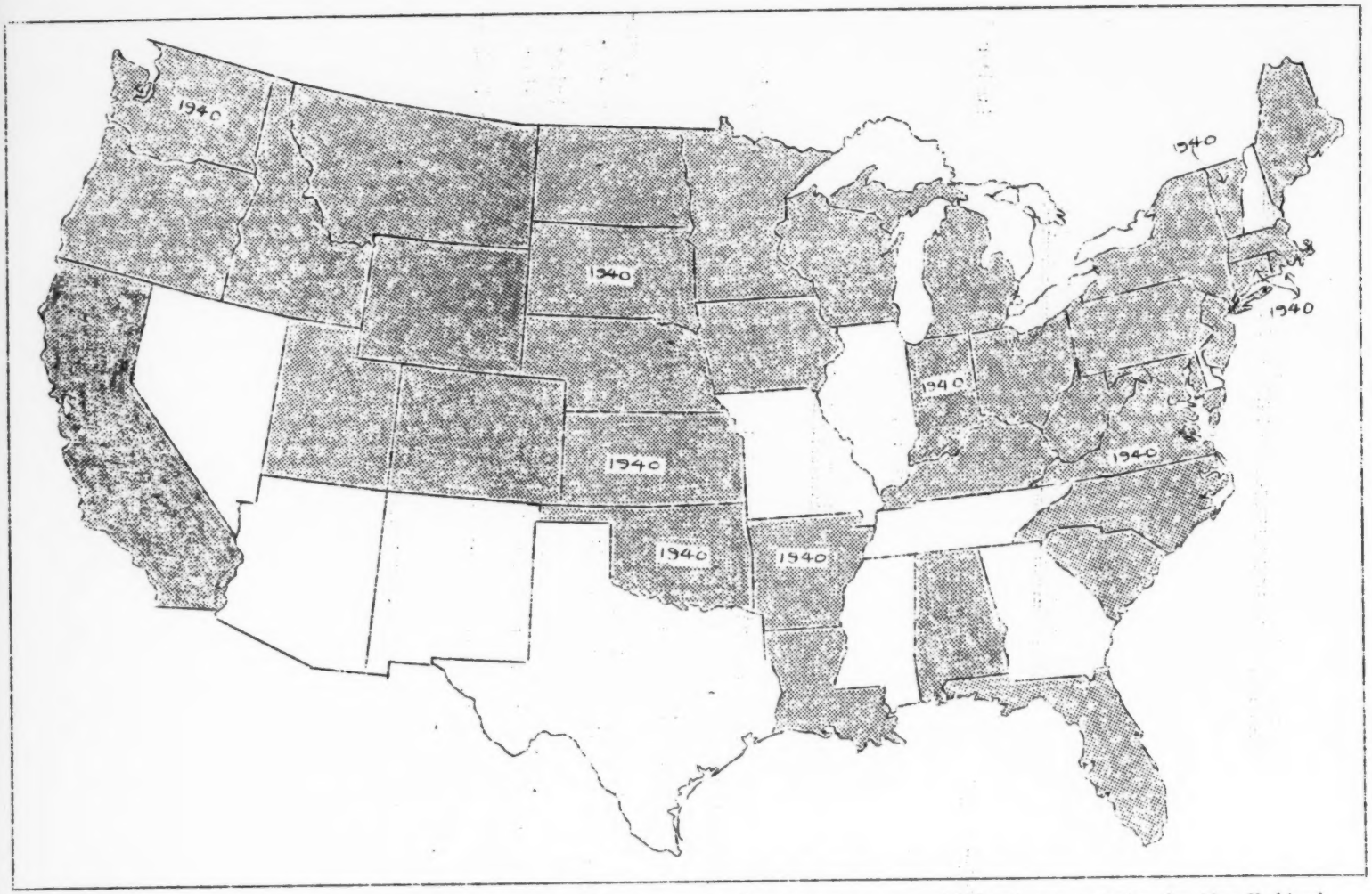

Known Distribution, by States, of bacterial ring rot (Phytomonas sepedonica) on potato in the United States in 1940. States from which the disease has been reported are shaded; the date indicates those in which the first definite knowledge of occurrence was obtained in 1940.

CHECK LIST REVISION

Freeman Weiss

DALBERGIA (LEGUMINOSAE)

DALBERGIA spp. Tropical trees and woody climbers.

Meliola bicornis Wint., black mildew. P. R.
Pseudothis pulchella (Speg.) Theiss., black leaf spot. Canal Zone.

DAPHNE (THYMELAEACEAE)

DAPHNE spp. Ornamental shrubs, natives of Europe and Asia, cult. *Zone V and southward; D. MEZEREUM L. is locally naturalized in Growth Regions 26, 27.

Botrytis sp., twig blight. Northeastern States, Pacific Northwest.
Fusarium sp., dieback, wilt. N. J.
Gloeosporium mezerei Cke., leaf spot, leaf drop. Wash.
Nectria cinnabarina Tode ex Fr., on twigs. N. J.
Phytophthora sp., collar rot. N. Y.
Rhizoctonia solani Kühn, stem rot. N. Y.
Sclerotium rolfsii Sacc., wilt, stem rot. Fla.

DAPHNOPSIS (THYMELEACEAE)

DAPHNOPSIS SPP. Small trees of West Indies.

Irene aibonitensis (Stevens) Toro, black mildew. P. R.

DAVILLA (DILLENIACEAE)

DAVILLA RUGOSA Poir. Woody vine of Tropical America, sometimes cult. as ornamental.

Phyllachora davillae F. L. Stevens, black leaf spot. Canal Zone.

DECUMARIA (SAXIFRAGACEAE)

DECUMARIA BARBARA L. Climbing shrub of Growth Regions 28, 29, 30; also cult. in Zone V and southward.

Cercospora decumariae Tr. & Earle, leaf spot. Miss.

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*In this and future sections of the Revised Check List the areas in which cultivated arborescent plants may be grown in the United States will be designated, as in Rehder's Manual of Cultivated Trees and Shrubs, by climatic zones. These zones are shown in the "hardiness map" of the United States which was reproduced on p. 101 of the PDR, Vol. 25, No. 3. The distribution of native arborescent plants will continue to be designated by the Mulford-Van Dersal growth regions.

DENDROMECON (PAPAVERACEAE)

DENDROMECON RIGIDA Benth., TREE-POPPY. Evergreen shrub of Growth Regions 4 and 5, sometimes cult. as ornamental.

Entyloma eschscholtziae Hark., leaf smut. Calif.
Pleosphaerulina californica Berl., on branches. Calif.
Pocosphaeria dendromeconis Earle, on branches. Calif.

DENDROPANAX (ARALIACEAE)

DENDROPANAX spp. Tropical shrubs and trees, sometimes cult. in far South.

Cephaleuros virescens Kze. algal spot. P. R.
Irene araliae (Spreng.) Syd., black mildew. P. R.
Meliola didymopanicis P. Henn., black mildew. P. R.
Phyllosticta araliana Young, leaf spot. P. R.

DEUTZIA (SAXIFRAGACEAE)

DEUTZIA spp. Ornamental shrubs of E. Asia, widely cult.

Cercospora deutziae Ell. & Ev., leaf spot. Del., Iowa.
Heterodera marioni (Cornu) Goodey, root knot. Miss.
Phyllosticta deutziae Ell. & Ev., leaf spot. Ala., Iowa, N. J.

DIDYMOPANAX (ARALIACEAE)

DIDYMOPANAX spp. Small trees of West Indies.

Mycosphaerella didymopanacis Miles, leaf spot. P. R.
Triposporium stelligerum Speg. ?

DIERVILLA (CAPRIFOLIACEAE)

DIERVILLA spp., BUSH-HONEYSUCKLE. Shrubs of Growth Regions 23, 24, 26, 27; occasionally cult. (Excluding Weigela, q. v.)

Cercospora weigeliae Ell. & Ev., leaf spot. Me.
Dothidea rimincola (Schw.) Pk., on dead twigs. N. Y.
Heterodera marioni (Cornu) Goodey, rootknot.
Microdiplodia diervillae Fairm., on dead branches. N. Y.
Microsphaera alni DC. ex Wint., powdery mildew. N. J., Wash.
Phyllosticta diervillae Davis, leaf spot. Wis.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Ramularia diervillae Pk., leaf spot. New England to Wis. R. umbrina J. J. Davis. Wis.
Sclerotium decidium J. J. Davis, on leaves. Wis.
Septoria diervillae Ell. & Ev., leaf spot. New England to Iowa.
Sphaeropsis diervillae Fairm. (?Physalospora obtusa), on dead branches N. Y.

DIOSPYROS (EBENACEAE)

DIOSPYROS KAKI L. f., JAPANESE PERSIMMON, KAKI. Native of China and Japan, cult. chiefly in Gulf States and Calif.

Alternaria sp., black rot (fruit). Occasional
Botryosphaeria ribis Gross. & Dug., dieback. Ala.
Botrytis cinerea Pers., gray-mold rot (fruit). Occasional.
Cephaleuros virescens Kze., algal spot. Fla.
Cercospora diospyri Thuem., leaf spot. S. C.
C. fuliginosa Ell. & Kell., black leaf spot. Gulf States.
(C. kaki Ell. & Ev.): Mycosphaerella diospyri.
Corticium koleroga (Cke.) Höhn. (C. stevensii Burt), thread blight. Fla.
Diplodia natalensis Pole-Evans, dieback, dry rot (fruit). Ala., Texas (Conidial stage of Physalospora rhodina.)
Gloeosporium diospyri Ell. & Ev. (?Glomerella cingulata), anthracnose. Gulf States.
Heterodera marioni (Cornu) Goodey, root knot. Texas.
Leptothyrium pomi (Mont. & Fr.) Sacc., fruit spot. Fla.
Mycosphaerella diospyri Syd., leaf blotch. Gulf States.
Penicillium expansum Link em. Thom, blue-mold rot. Cosmopolitan.
Pestalotia (Pestalozzia) sp., leaf spot. Gulf States.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Physalospora fusca N. E. Stevens, on branches. Ala., Ga.
P. obtusa (Schw.) Cke., black rot (fruit), leaf spot, twig blight. Gulf States. P. rhodina (Berk. & Curt.) Cke., dieback. Ala.
Phytomonas tumefaciens (EFS.) Bergey, crown gall. Calif.
Ramularia sp., leaf spot. Fla.
Rhizopus nigricans Ehr. ex Fr., soft rot (fruit). Texas.

DIOSPYROS LOTUS L., DATE-PLUM, LOTUS PERSIMMON. Native of E. Asia, cult. in Calif.

Cercospora diospyri Thuem., leaf spot. Md.
Phytomonas tumefaciens (EFS.) Bergey, crown gall. Calif.

DIOSPYROS VIRGINIANA L. (including the var. PLATYCARPA Sarg.) COMMON PERSIMMON, and D. TEXANA Scheele, TEXAS PERSIMMON. Growth Regions 20, 22, 25, 27, 28, 29, 30, 31.

Alternaria sp., fruit spot. Fla.
Cephalosporium sp., wilt. N. C. and Tenn. to Fla. and Texas.
Ceratostomella sp., blue stain.
(Cercospora atra Ell. & Ev.): C. fuliginosa.
C. diospyri Thuem., leaf spot. Md. to Ala. and Texas.
(C. flexuosa Tr. & Earle): C. diospyri
C. fuliginosa Ell. & Kell., black leaf spot. Del. to Gulf States, Kans., Texas.
(Colletotrichum gloeosporioides Penz.): Glomerella cingulata.
Daedalea ambigua Berk., wood rot. Lower Mississippi Valley.

DIOSPYROS--Continued

Diplodia sp., dieback, foot rot. Ala., Fla., Md. Dry rot. Texas.
Dothiorella diospyri Petr. & Syd. (?Botryosphaeria ribis Gross. & Dug.), on branches. La., Md.
Fomes annosus Fr., wood rot. Ind.
F. marmoratus (Berk. & Curt.) Cke., wood rot. Southern States.
Fusicladium levierii, scab. Conn., ?Fla.
Ganoderma lucidum (Leyss. ex Fr.) Karst., heart rot. La.
Gloeosporium diospyri Ell. & Ev. (?Glomerella cingulata), anthracnose (leaves and fruit), twig blight. Eastern and Southern States to Kans.
(Helminthosporium diospyri Thuem.): Cercospora diospyri
Heterodera marioni (Cornu) Goodey, root knot.
Lasiosphaeria pezicula (Berk. & Curt.) Sacc., sapwood stain.
Macrophoma diospyri Earle (?Physalospora obtusa), leaf and fruit spot. Ala., N. C.
Melasmia falcata Syd. (?), tar spot. Oreg.
Myriangium duriaei Mont. & Berk., on scale insects on bark. Southern States.
Pestalotia (Pestalozzia) sp., leaf and fruit spot. Fla.
Phomopsis diospyri (Sacc.) Trav. & Migl., twig blight. Fla., S. C.
Phoradendron flavescens (Pursh) Nutt., mistletoe. Texas
Phyllachora orbiculata (Schw.) Sacc., black leaf spot. S. C., Tenn.
Phyllosticta biformis Heald & Wolf, leaf spot. Texas.
Phyllosticta sp., leaf spot. Fla., Ind.
Physalospora obtusa (Schw.) Cke., on branches, ?twig blight. N. Y. to Gulf States. P. rhodina (Berk. & Curt.) Cke., dieback. Fla. to La.
Phytomonas tumefaciens (EFS.) Bergey, crown gall. Fla.
Podosphaera oxyacanthae (DC.) DBy., powdery mildew. Ind.
Polyporus spraguei Berk. & Curt., butt rot. Ind.
Polyporus spp. (P. gilvus (Schw.) Fr., P. mutabilis Berk. & Curt., P. pargamenus L. ex Fr., P. supinus Sw. ex Fr., P. versicolor L. ex Fr.), wood rot.
Schizophyllum commune Fr., wood rot, sometimes on living trees.
Sphaeropsis diospyri Dearn. & Barth. (?Physalospora obtusa), on branches. La.
Tryblidiella rufula (Schw.) Sacc., on twigs. Ala.
Valsa diospyri Ell. & Ev., on twigs, W. Va.

DIPHOLIS (SAPOTACEAE)

DIPHOLIS spp. Tropical trees, some of timber value.

Meliola dipholidis F. L. Stevens, black mildew. P. R.
Scolecopeltella portoricensis Speg., black leaf spot. P. R.

DIRCA (THYMELEACEAE)

DIRCA PALUSTRIS L., LEATHERWOOD. Shrub of Growth Regions 22, 23, 24, 25, 27, 28, 29.

(Aecidium hydnoideum Berk. & Curt.): Puccinia extensicola hydnoidea
Gloeodes pomigena (Schw.) Colby, on twigs. Ind.
Puccinia extensicola hydnoidea (Berk. & Curt.) Arth., rust (I). Me. to Minn. and Mo., Ala. (II and III on Carex pennsylvanica.)

DODONAEA (SAPINDACEAE)

DODONAEA spp. Shrubs or small trees. D. ARIZONICA Nels., HOPBUSH, in Growth Region 11; D. VISCOSA in Fla., West Indies and Hawaii.

Meliola lyoni F. L. Stevens, black mildew. T. H.

DOXANTHA (BIGNONIACEAE)

DOXANTHA UNGUIS-CATI Rehd. (Bignonia unguis-cati L.), CATS-CLAW. Woody vine of Tropical America, sometimes cult.

Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

DRACAENA (LILIACEAE)

DRACAENA spp. Tropical trees and shrubs. Cult. as ornamentals, chiefly as potted or tubbed plants indoors in the U. S. (in part Cordyline); some, especially D. DRACO, DRAGON-TREE grown outside in Calif. and the far South.

Cladosporium dracaenatum Thuem., on leaves. S. C.
Colletotrichum dracaenae Allesch., leaf spot. N. J.
(C. gloeosporioides Penz.): Glomerella cingulata.
Coniothyrium dracaenae Stevens & Weedon, on leaves, T. H.
Diplodia theobromae (Pat.) Nowell, on leaves. (Conidial stage of Physalospora rhodina.)
Gloeosporium polymorphum Trinch. and G. thuemenii Sacc., leaf spot. Widespread.
Glomerella cincta (Ston.) Spauld. & Schrenk. (?G. cingulata (Ston.) Spauld. & Schrenk.), leaf spot. Widespread.
Meterodera marioni (Cornu) Goodey, root knot. Fla.
Lophodermium dracaenae Phil. & Harkn., black leaf spot. Calif.
Meliola dracaenae F. L. Stevens, black mildew. T. H.
Phyllosticta dracaenae Griff. & Maubl., leaf spot. N. J.
P. draconis Berk., Pa. P. maculicola Halst., Mass., N. J., P. R.
Physalospora dracaenae Sheld. (?P. obtusa (Schw.) Cke.)? tip blight. W. Va. P. rhodina (Berk. & Curt.) Cke., Md.
Vermicularia concentrica Lev., on leaves.

DREPANOCARPUS (LEGUMINOSAE)

DREPANOCARPUS LUNATUS (L. f.) Meyer. Small tree of West Indies.

Trabutia conica Chardon, black leaf spot. P. R.

DRYPETES (EUPHORBIACEAE)

DRYPETES spp., Guiana-plum. Shrubs or small trees of Tropical America including southern Fla.

Asterina drypetis Ryan, black leaf spot. P. R.
Irenina glabra (Berk. & Curt.) Stevens, black mildew. P. R.
Phyllachora drypeticola. Stevens & Dalby, black leaf spot. P. R.

DUGGENA (RUBIACEAE)

DUGGENA spp. Shrubs and small trees of Tropical America, sometimes cult. as ornamentals.

Meliola duggenae F. L. Stevens, and var. panamensis, black mildew. Canal Zone. M. psychotriae Earle, P. R.
Wageria portoricensis Stevens & Dalby, on leaves. P. R.

DURANTA (VERBENACEAE)

DURANTA REPENS L. (D. plumieri Jacq.), PIGEON BERRY. Shrub or small tree of Growth Regions 11, 17, 32, and West Indies.

Phyllachora fusicarpa Seaver, black leaf spot. P. R.
Sclerotium rolfsii Sacc., seedling blight. Fla.

ELAEAGNUS (ELAEAGNACEAE)

ELAEAGNUS ANGUSTIFOLIA L., RUSSIAN-OLIVE. Small tree of Eurasia, cult. and locally naturalized in Growth Regions 7, 9, 15, 18, 21, 22.

(Aecidium arctoum Arth.): Puccinia caricis-shepherdiae.
Cercospora carrii Barth., leaf spot. Texas.
C. elaeagni Heald & Wolf, leaf spot. Texas.
Cucurbitaria caraganae var. elaeagni Rehm, (?C. elongata (Fr.) Grev.), on branches. N. Dak.
Cytospora elaeagni Allesch., on branches. Okla.
Nectria cinnabarina Tode ex Fr., on branches, ?canker. Calif.
Physalospora obtusa (Schw.) Cke., on branches. N. Dak., N. Y.
Puccinia caricis-shepherdiae J. J. Davis, rust (O. I). N. Dak. (II and III on Carex spp.)
Phytomonas rhizogenes Riker et al, hairy root. Central States.
Septoria argyraea Sacc., leaf spot. Iowa, N. Dak. S. elaeagni (Chev.) Desm., Kans.

ELAEAGNUS--Continued

Sphaeropsis elaeagnina Fairm.,(?Physalospora obtusa (Schw.) Cke.), on branches. N. Y.

ELAEAGNUS COMMUTATA Bernh. (E. argentea Pursh), SILVERBERRY. Shrub or small tree of Growth Regions 9, 15, 18, 21, 23, 24, 26; also cult.

(Aecidium allenii Clint.): Puccinia caricis-shepherdiae.
Cucurbitaria caraganae var. elaeagni Rehm, on branches. N. Dak.
Phyllactinea corylea Pers. ex Karst., powdery mildew. Oreg.
Puccinia caricis-shepherdiae J. J. Davis, rust (O. I). Northern Plains States.
P. coronata Cda. var. elaeagni Fraser & Ledingham,rust (I). Mont. N. Dak. (II and III on Calamagrostis elongata (Kearney) Rydb.)
Septoria argyraea Sacc., leaf spot. Nebr.
Valsa ambiens Pers. ex Fr., on branches. N. Dak.

ELAEAGNUS spp. Cultivated forms, other than the preceding.

Camarosporium elaeagnellum Fairm., on dead branches. N. Y.
Diaporthe elaeagni Rehm (?D. beckhausii Nit.), on dead branches. N. Y.
Phyllosticta argyrea Speg., leaf spot. Md.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Rhizobium sp., root nodules. N. Y., Ohio.

EMPETRUM (EMPETRACEAE)

EMPETRUM NIGRUM L., CROWBERRY. Evergreen shrub of boreal and alpine regions, sometimes cult. as ornamental.

Chrysomyxa empetri (Pers.) Schroet., rust (II). Me., N. H., N. Y.
Didymosphaeria empetri (Fr.) Sacc., on leaves. N. Y.
Physalospora empetri Rostr., on leaves. Alaska.
Septoria empetri Rostr., on leaves. Alaska

ENCELIA (COMPOSITAE)

ENCELIA spp. Subshrubs of Ariz. and Calif., some of which are cult. as ornamental.

Puccinia enceliae Diet. & Holw., rust (O, I, II, III). Calif.

EPHEDRA (GNETACEAE)

EPHEDRA spp. Dryland shrubs of the southern Great Plains and Southwestern States, sometimes cult. as ornamentals or drug plants.
Peridermium ephedrae Cke., rust witches' broom (O. I). Texas to Utah and Calif.

EPHEDRA--Continued

Schizostoma nevadensis Ell. & Ev., on stems. Colo.

ERICA (ERICACEAE)

ERICA spp., HEATH. Evergreen shrubs of Europe and S. Africa, cult. as ornamentals in Calif. and up to Zone V in the East; some spp. locally naturalized in Mass.

Erysiphe polygoni DC., powdery mildew. Calif.
Phytophthora cinnamomi Rands, collar rot. N. Y.
Pucciniastrum ericae (Naumann) Cummins, rust (II). Calif.

ERIOBOTRYA (ROSACEAE)

ERIOBOTRYA JAPONICA (Thunb.) Lindl., LOQUAT. Evergreen tree of China, cult. for fruit and as ornamental in Zone VII and southward.

Armillaria mellea Vahl ex Fr., mushroom root rot. Calif.
Cephaleuros virescens Kze., algal spot. Fla., P. R.
Colletotrichum gloeosporioides Penz., anthracnose, flower blight, withertip. Calif., Fla., Texas. (Conidial stage of Glomerella cingulata.)
Clitocybe tabescens (Scop. ex Fr.) Bres., mushroom root rot. Fla.
Entomosporium maculatum Lév., leaf blotch. Fla. (Conidial stage of Fabraea maculata Atk.)
Erwinia amylovora (Burr.) Winslow, fire blight. Gulf States, Ariz. Calif.
Fusicladium eriobotryae (Cav.) Sacc., scab. (leaves, stems and fruit). Widespread.
Glomerella cingulata (Ston.) Spauld. & Schrenk., on twigs and fruit. Gulf States.
Pestalotia (Pestalozzia) longiaristata Maubl. and Pestalotia sp., on leaves. Fla., La.
Phyllosticta eriobotryae Thuem., leaf spot. Fla.
Physalospora obtusa (Schw.) Cke., on branches. Fla.

ERIODICTYON (HYDROPHYLLACEAE)

ERIODICTYON spp., YERBA-SANTA. Evergreen shrub of Growth Regions 1, 4, 9, 10, 11.

Torula glutinosa Cke. & Harkn., on leaves. Calif.
Coniothecium eriodictyonis Dearn. & Barth., sooty blotch. Calif.

ERIOGONUM (POLYGONACEAE)

ERIOGONUM spp. Subshrubs (and herbs) of Western Plains and drylands, sometimes transplanted as ornamentals; some (E. FASCICULATUM Benth., CALIFORNIA-BUCKWHEAT) are important honey plants.

Camarosporium eriogoni Ell. & Ev., on stems. Colo.
Cercospora eriogoni Ell. & Ev., leaf spot. Calif.
Coniothyrium eriogoni Earle, on stems. Colo.
Erysiphe cichoracearum DC., powdery mildew. Calif., Wash.
E. polygoni DC. Calif.
Gloeosporium eriogoni Ell. & Ev., on leaves. Colo.
Hendersonia eriogoni Fairm., on dead stems. N. Mex.
Heterosporium sphaeriiforme Ell. & Ev., on stems. Colo.
Leptostromella eriogoni Earle, on dead stems. Nev.
Phoma herbarum Westd., on stems. Calif.
Puccinia aristidae Tr., rust (O. I). On E. trichopodium, Ariz. (II and III on wild grasses).
Pyrenophora eriogoni Earle, on dead stems. Colo.
Uromyces intricatus Cke., rust (O, I, II, III). Western Plains to Pacific Coast.

ERIOPHYLLUM (COMPOSITAE)

ERIOPHYLLUM spp. Subshrubs of Western Plains, sometimes transplanted as ornamentals.

Puccinia eriophylli Jacks., rust (II, III). Wyo. and Oreg. to Calif.
Uromyces junci (Desm.) Tul., rust (O. I). Calif. (II and III on Juncus spp.)

ERNODIA (RUBIACEAE)

ERNODIA spp. Vine-like shrubs of littorals, S. Fla. and West Indies.

Puccinia lateritia Berk. & Curt., rust (III). Fla., P. R., Virgin Is.

ERYTHRINA (LEGUMINOSAE)

ERYTHRINA spp., including E. ARBOREA (Chapm.) Small, RED-CARDINAL, a small tree of S. Fla. and the Gulf Coast; C. FLABELLIFORMIS Kearney, CORALBEAN, a small tree of Ariz. and N. Mex.; and several spp. in Tropical America grown as ornamentals and for shade in plantations.

Cercospora erythrinae Ell. & Ev., on leaves. La. C. erythrinicola Tharp., Texas.
Colletotrichum erythrinae Ell. & Ev., on leaves. Fla.

ERYTHRINA--Continued

Corticium koleroga (Cke.) Höhn., thread blight. Fla.
Dicheirinia binata (Berk.) Arth., rust (II, III). Canal Zone, P. R.
Heterodera marioni (Cornu) Goodey, root knot.
Meliola bicornis Wint., M. crenatissima Syd., M. erythrinae Syd., black mildew. Canal Zone, P. R.
Mycosphaerella erythrinae F. L. Stevens, on leaves. Canal Zone. (M. erythrinae Koord has priority)
Nectria cinnabarina Tode ex Fr., on stems. Ala.
Phoma erythrinicola Tr. & Earle, on stems. Miss.
Phyllosticta erythrinicola Young, leaf spot. P. R.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

ERYTHROXYLON (ERYTHROXYLACEAE)

ERYTHROXYLON spp. Shrubs or small trees of tropical regions. E. COCA Lam. is the source of cocaine.

Bubakia erythroxylonis (Graz.) Cummins, rust (II). P. R., Virgin Is.

(Division of Mycology and Disease Sruvey.)

THE CITRUS CANKER SITUATION

In 1935 with the cooperation of the States of Louisiana and Texas, and the assistance of emergency relief crews, the inspection for citrus canker [Phytomonas citri] and tree removal activities were expanded, with the result that up to the latter part of 1936, 54 infected properties previously undiscovered and of long standing were located in Texas and Louisiana. There were 2,800 trees having citrus canker on these properties.

During the years 1937-1940, continued activities have reduced the findings of citrus canker to 3 new properties in Texas and 8 in Louisiana. Three of these Louisiana properties were located, however, in the vicinity of old infected areas. In addition, the disease recurred on 13 Texas properties formerly known to be infected. The diseased trees found in this 4-year period numbered 279 in Texas and 865 in Louisiana. In 1940 only one infected property was located in Louisiana and one in Texas. At no time in recent years has canker been found to exist in any of the commercial citrus producing areas of this country.

In 1936 and 1937, the Gulf Coast counties of Alabama and Mississippi, and an area in northwestern Florida were systematically inspected, and escaped and abandoned tree removal work carried on. No citrus canker was found.

The removal of wild, abandoned, escaped, and diseased citrus trees, including young seedlings of Citrus trifoliata in formerly infected areas has been carried on with relief labor in 60 counties of 5 States during the past 6 years. Approximately 20,000 properties have been so worked.

The table lists the infections found since 1936:

Citrus Canker Infections 1937-1940

Year	Parish or County	Number of Properties: Original infections	Number of Properties: Recurrent infections	Number of trees infected
		LOUISIANA		
1937	Assumption	2 *	0	31
	St. Charles	1 *	0	4
1938	La Fourche	3	0	24
1939	Terrebonne	1	0	2
1940	Jefferson	1	0	804
	Total	8	0	865
		TEXAS		
1937	Galveston	2	5	129
1938	Brazoria	1	3	126
	Harris	0	3	22
	Jefferson	0	1	1
1939	--	0	0	0
1940	Galveston	0	1	1
	Total	3	13	279

*Properties not previously found infected but situated in old infected areas.

(Bureau of Entomology and Plant Quarantine.)

BRIEF NOTES ON PLANT DISEASES

RESISTANCE OF GRASSES TO SNOWMOLD: Since Monteith and Dahl (1) first published on "Snowmold of Fine Turf Grasses", 4 different organisms have been held responsible for the disease. Further investigation might reveal others. Yet in spite of this wide array of pathogens, resistance and susceptibility of grasses to snowmold is listed only for one pathogen, Fusarium nivale (2). In this rating Colonial bent, Agrostis tenuis, is listed as resistant.

In 1939 Colonial bent in the experimental plots at this station suffered severe damage from snowmold. Isolation techniques revealed a basidiomycete that was later identified by Remsberg (3) as Typhula itoana Imai. Subsequent isolations from snowmolded turf from various parts of Pennsylvania have failed to reveal any organism but Typhula. It is obvious then that a new classification of disease resistance to snowmold caused by Typhula sp. is in order.

The writer would like to have pathologists, particularly those in the Northeastern States, reclassify their grasses with respect to disease resistance to snowmold, in order to check on the prevalence and distribution of Typhula. The presence of this causal organism is readily determined by the reddish-brown sclerotia in the culm sheaths and leaves (3). Many pasture grasses and cereals are susceptible.

(1). U. S. Golf Assn. Green Sect. Bul. 12 (4): 140-144. 1932.
(2). Phytopath. 24: 197-214. 1934.
(3). Mycologia 32: 52-96. 1940.

(C. C. Wernham, Department of Botany, Pennsylvania State College.)

TITAEOSPORA ANDROPOGONIS (MIURA) CLEMENTS & SHEAR IN LOUISIANA: A leaf spot, asscciated with a fungus tentatively identified as Titaeospora andropogonis (Miura) Clements & Shear (Syn.: Ramulispora andropogonis Miura), was found during the fall of 1940, on several varieties of sweet sorghum and on Johnson grass at Baton Rouge, Louisiana. The fungus was isolated and its pathogenicity was proven by inoculation experiments. From information supplied through the courtesy of Dr. G. D. Darker, Farlow Herbarium, Harvard University, this fungus occurs on sorghum in China. Apparently it has not been previously reported in the United States.

This fungus was, however, apparently collected by Dr. C. L. LeFebvre on Sudan grass at Arlington Farms, Virginia, during the summer of 1939. Mycelium and spores on a slide received from Dr. LeFebvre are apparently identical with those of the organism collected in Louisiana.

A study is being made of the leaf spot and the fungus, and suspected material from other parts of the country is greatly disired. (Douglas C. Bain, Department of Botany, Louisiana State University.)

FEBRUARY WEATHER

(From U. S. Department of Commerce Weather Bureau, Weekly Weather and Crop Bulletin for week ending March 4.)

February was abnormally cold over a considerable southeastern area, but elsewhere the monthly mean temperatures were above normal. West of the Rocky Mountains, abnormal warmth, as in the preceding winter months, prevailed. The far West had heavy to excessive precipitation, but interior sections were decidedly dry.

Figure 1 shows that February temperatures averaged from 3° to 8° below normal from the Ohio Valley eastward and southward, and also in the southern trans-Mississippi States. Over the western half of the country the plus departures from normal ranged generally from 4° to 14°.

Figure 2 shows the geographic distribution of precipitation for the month as reported from first-order stations. The amounts were heavy to excessive in the extreme Southeast, from the lower Great Plains southward and southwestward in the Great Basin of the West, and in the central

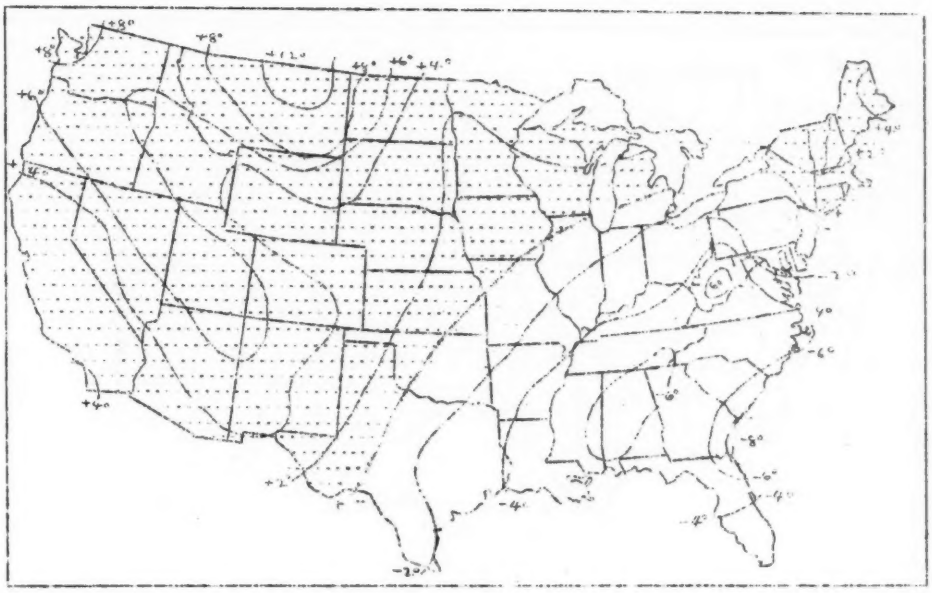

Figure 1. Department of Mean Temperature from Normal, February, 1941.

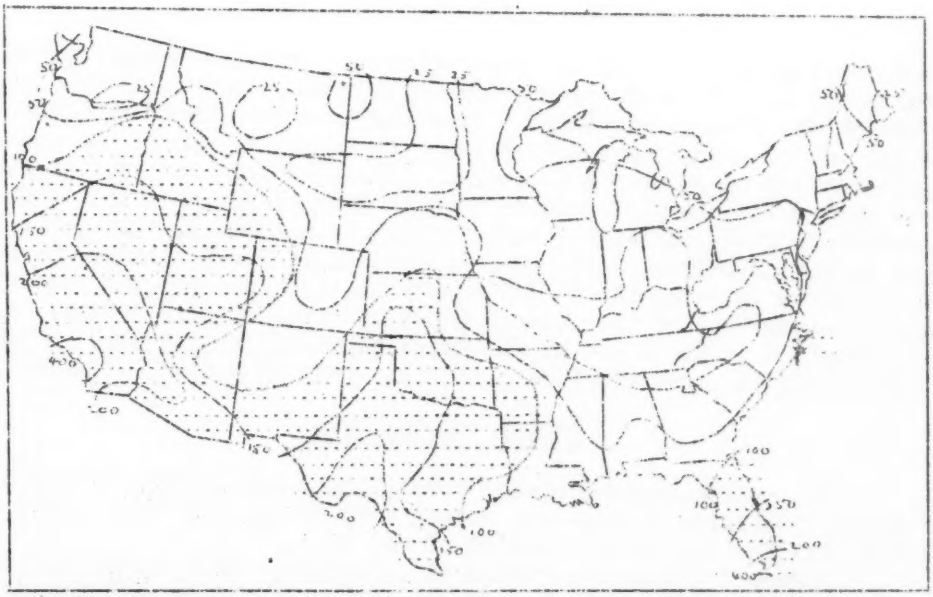

Figure 2. Percentage of Normal Precipitation for February, 1941.

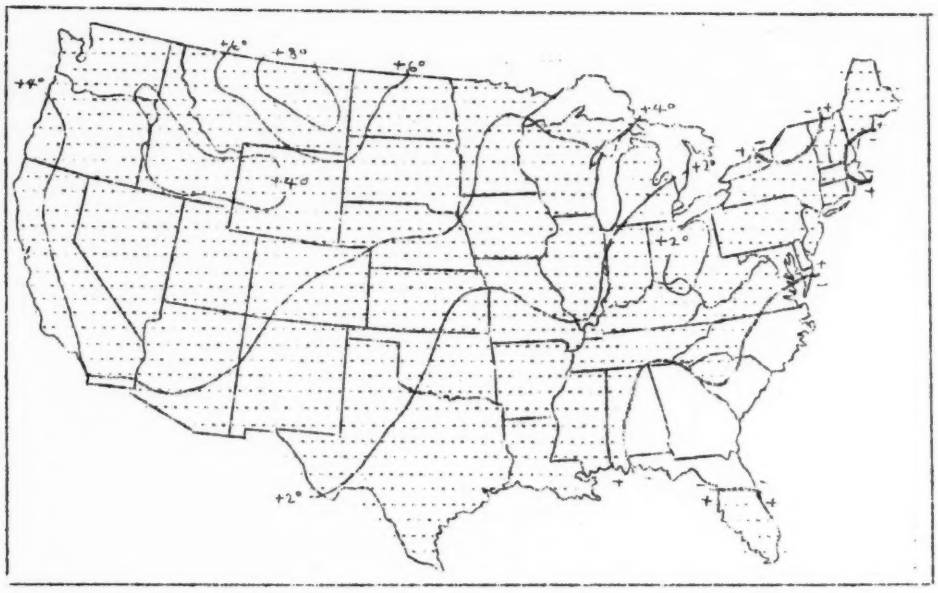

Figure 3. Departure of Mean Temperature from Normal, Winter 1940-1941 (Dec.-Feb.)

and southern portions of the Pacific area. The outstanding feature of the month was the heavy rainfall in California, especially the southern part of the State. Los Angeles reported a monthly total of 12.42 inches, which was the second greatest February rainfall of record and the fourth greatest for any month in 64 years. This February total for Los Angeles was more than one-third greater than the normal for the three winter months combined; the winter total this year was 20.13, exceeded only in the winter of 1889-90 with a 3-month's fall of 24.99 inches. In contrast to these heavy rains in the far Southwest, the interior and central-northern portions of the country had very little precipitation. Much of the Ohio and parts of the middle Mississippi Valley, as well as some sections of the northern Plains had less than 25 percent of normal.

WINTER TEMPERATURES

The meteorological winter covers the 3 months from December to February inclusive because the normal temperature for this period is lower than for any other 3 months of the year.

Figure 3 [shows departures of temperature from normal for the winter just ended.] Following recent trends in winter weather, the average temperature for the 3 months was above normal everywhere, except in a limited southeastern area and locally in the Northeast. In the Ohio and Mississippi Valleys, the averages ranged generally from about half a degree to more than 2° above normal. The greatest departures from

normal are shown for the northern Great Plains and the States west of the Rocky Mountains where the winter in general averaged from 4° to more than 8° warmer than normal.

December was abnormally warm everywhere except in the extreme Northeast. January had substantially above normal temperatures in all sections west of the Mississippi River, but in the more eastern States tendencies were slightly subnormal, with the greatest minus departures in the extreme Northeast. February, as previously pointed out, was abnormally cold over a large southeastern area, and decidedly warm in the more western and northwestern States.